Message

**From**: EPAResearchCompass [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C1E8F11508674C3C954553A1129D33E5-EPARESEARCH]
**Sent**: 11/13/2018 4:58:18 PM
**To**: ORD-ALL Feds and NonFeds and RSLs [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2c735272eef941588aefd9a05ed28823-ORD-ALL Feds and NonFeds and RSLs]
**CC**: Lincoln, Larry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8248d03a1441414db7754db201ebec45-Lincoln, Larry]; Barnett, Felicia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5773b45cae5142fe950861dd6146f1e9-Barnett, Felicia]; Carter, Bobbi [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f16dcafe85fc418ebd1651be2e8ab82d-Carter, Bobbi]; Gettle, Jeaneanne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d8e72aa7e1894faea44006fd9f22b637-Gettle, Jeaneanne]; Taylor, Dawn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b984d00ec06544e498ee5d986f97047c-Taylor, Dawn]; Klinger, Adam [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=346d5466632f4967adc7169c8d2ce4fd-Klinger, Adam]; Liljegren, Jennifer [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c7098a838cd34f75b8878571fe95d939-JLiljegr]; Pollard, Solomon [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=16cdf700f8024145847a2770b84abae3-Pollard, Solomon]; Clarage, Meredith [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ee9504437be545489f518710a5e80e68-Clarage, Meredith]; Fan, Shirley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cdeba1df9599435cb7401d0a65be7cda-Sfan02]; Peffers, Mel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1b6116fbb41448b38b3caefc882165fe-Peffers, Melissa]
**Subject**: Weekly Compass: November 13, 2018

EPA

WEEKLY compass

Weekly Update: 11/13/2018

Welcome to the Weekly Compass, your gateway to information about recent and upcoming ORD activities. If you have ideas for the Weekly Compass, please send them to the editors. To see past issues, visit the Weekly Compass archive on ORD@work.

**Weekly Note from Jennifer**
ORDers- Today, I gave opening remarks at the public meeting of the Air and Energy Subcommittee of the Board of Scientific Counselors. This meeting supports the subcommittee's review of the Air and Energy Draft Strategic Research Action Plan.

On Friday, Chris Robbins and I, along with ORD lab directors and senior scientists from RTP will be visiting NC Department of Environmental Quality's (NC DEQ) Reedy Creek Lab. This half day visit is to tour the lab and learn about their S&T capabilities, and discuss topics of interest to the state and related science and technical needs, as well as potential collaborations. ORD scientists will engage on topics that NC DEQ identified were of most interest to their state, including PFAS, post Hurricane Florence water sampling/analysis, EPA's emergency response air monitoring capabilities, and algal toxins.

Finally, I also have some very sad news to share. Ron Landy, who had been the Regional Science Liaison for Region 3 for many years, and Marie O'Shea, who was the current Regional Science Liaison for Region 2, both recently passed away. Ron and Marie, along with their families and our Regional Science Program colleagues, are in our thoughts. Ron and Marie's contributions to protecting human health and the environment are long lasting and both will be deeply missed.
*-Jennifer*

## Quick Updates

- This Friday: FY18 PARS ratings; signed, original FY18 PARS Plans; and LCO PARS certifications of completion due to OARS/HRD
- November 24: Deadline for scheduling "use or lose" leave for restoration eligibility and obtaining supervisor approval
- Now - December 10: Federal Benefits Open Season (Health, Dental/Vision, Flexible Spending) is open. The Virtual Benefits Fair is open during open season.
- December 11: The 2019 16th Annual P3 Awards: A National Student Design Competition Focusing on People, Prosperity and the Planet Phase 1 Request for Applications (RFA) closes
- December 14: Response to "Request for Final 2018 Conference Spending Data" due to OCFO
- December 31: Mandatory manager/supervisor training must be completed
- January 7: Nominate your colleagues for the Arthur S. Flemming Awards! Email one to two paragraphs justifying the award nomination to Marian P. Cooper in the Office of Administration and Resource Management by Monday, Jan. 7
- January 18: Nominate a colleague for a Service to America Medal aka the Sammies! Anyone can nominate a federal employee for a Sammie, so consider nominating an EPA colleague by January 18.
- Don't forget to check out the open opportunities on Talent Hub!
- You can read the This Week @ EPA newsletter here.
- Upcoming webinars:
    - Virtual Benefits Health Fair Live Chat: Tuesday, November 13, 10 - 5 ET
    - TSP Loans & In-Service Withdrawals: Wednesday, November 14, 10 -11:30 or 1-2:30 ET (registration password: TSPweb)
    - EPA Tools and Resources Webinar: Remediation to Restoration to Revitalization--Tools to Support Remedy Decisions: Wednesday, November 14, 3-4 ET

- TSP Post-Service Withdrawals: Thursday, November 15, 10-11:30 ET or Thursday, November 15, 1-2:30 ET (registration password: TSPweb)
- SERDP & ESTCP Webinar: Stormwater Impacts on Sediment Recontamination: Thursday, November 15, 12-1:30 ET
- Small Water Systems Research Webinar: Tribal and Very Small Systems: Tuesday, November 27, 2-3:30 ET

## Faces of ORD: Armah de la Cruz

# In the Lab:

## Industry/EPA Meeting on PFAS

NRMRL's Tom Speth and Marc Mills will participate in meetings this week with the Policy Navigation Group, a group that provides policy and economic analysis services, including for emerging science and technology issues.On Thursday, meeting participants will discuss analytical techniques for PFAS in the environment and on Friday, participants will discuss PFAS treatment and remediation.

## Technical Assistance for Lead Sampling in Schools in Washington State

At the request of OW, NRMRL's Darren Lytle and Simoni Triantafyllidou participated in a call with OW and the Washington State Department of Health. Based on information provided in the EPA 3Ts Toolkit, a school building located in the State of Washington replaced faucets and fixtures after observing high lead levels in water samples. Following replacement of the faucets, they resampled and continued to see elevated lead levels in the water. Darren and Simoni provided technical recommendations on what other steps could be taken to lower lead levels in the school.

Additionally, Darren Lytle provided technical assistance to a Region 6 scientist, and answered questions regarding lead sampling in schools. Tribal schools located in the Region have reported higher lead levels observed while conducting 3Ts monitoring. Darren provided recommendations on how to isolate the sources of lead via sampling.

## Promising Results for Technology Development and Transfer for Wastewater Treatment

Through a Cooperative Research and Development Agreement with Lubrizol, NRMRL's Dan Murray and Vasudevan Namboodiri, are developing on-site peracetic acid generation technology for wastewater treatment. With support from the Metropolitan Sewer District of Greater Cincinnati, bench- and pilot-scale studies are being conducted to optimize treatment efficiency. The results to-date show potential for collateral energy and resource conservation, decontamination, and health and safety and economic advantages over conventional methods. The development and transfer of this technology supports both SSWR and the President's Management Agenda Cross-Agency Priority Goal #14 for improving transfer of federally-funded technologies from the laboratory to the commercial market.

## Community Meeting on Next Generation Measurements Project

NRMRL's Eben Thoma, Ingrid George, and Rachelle Duvall provided community members in Louisville, KY with updates on a Regional Applied Research Effort (RARE) field study taking place in the Rubbertown area of Louisville. Currently, NRMRL scientists are working with Region 4 and the Louisville Metro Air Pollution Control District on a year-long project to demonstrate next generation emissions measurement (NGEM) technologies near Rubbertown facilities to detect fugitive volatile organic compound (VOC) emissions. The Rubbertown area is faced with numerous air quality challenges related to the control of ozone, exposure to air toxic pollutants, and odor issues. Industrial facilities, regulators and nearby communities have a mutual interest in the application of NGEM approaches for effective detection and mitigation of fugitive emissions of air toxic and odorous VOCs.

## Update to EPA Method for Analyzing PFAS in Drinking Water

NERL's Jody Shoemaker and Dan Tettenhorst recently developed EPA Method 537.1, Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). This is a standardized method for analyzing 18 different PFAS in drinking water. The method updates EPA Method 537 by adding a component of GenX and three additional PFAS compounds. ORD cleared the method for publication after a multi-laboratory evaluation and internal and external peer reviews. The method is now available on the EPA Drinking Water Research Methods page.

## Staff Deployment with Wildland Fire Air Quality Response Program

NERL's Gayle Hagler recently participated in a two-week deployment to Utah as an Air Resource Advisor (ARA) with U.S. Forest Service's Wildland Fire Air Quality Response Program (WFAQRP). Because wildfire smoke exposure can impact human health and local economies, the WFAQRP trains ARAs from across the private sector, and federal, state, local and tribal governments, to offer technical assistance on smoke issues from wildland fires. Currently, there are around 100 trained ARAs in the country and eight of them are EPA-affiliated. Hagler was deployed to Utah's Pole Creek and Bald Mountain fires, which covered approximately 120,000 acres. The ARAs are responsible for creating daily outlook documents that communicate information to the public about the fire conditions, meteorology, and predicted fine particulate matter (PM2.5) levels in areas downwind of the wildfires. Hagler believes EPA has much to offer the WFAQRP, particularly by advancing monitoring capabilities for future ARAs and providing resources that support smoke-ready communities.

## Update on SHEDS-IEUBK Multimedia Lead Modeling Analysis

OCSPP has requested assistance from NERL with modeling support for the Lead Hazard Rule. Jim Xue is leading the effort to provide this rapid technical assistance and will be using the approach featured in the publication, Children's Lead Exposure: A Multimedia Modeling Analysis to Guide Public Health Decision-Making in *Environmental Health Perspectives* by NERL's Valerie Zartarian, Xue, Rogelio Tornero-Velez, and NCEA's James Brown. This approach, which uses the Stochastic Human Exposure and Dose Simulation-Multimedia and Integrated Exposure Uptake and Biokinetic (SHEDS-IEUBK) models, is also the approach NERL is using to assist OW with support for the Lead Copper Rule. The EPH article was published in September 2017 and has been downloaded over 7,700 times in the 14 months since. As an example of the publication's impact, a Senior Epidemiology Supervisor for Minnesota Department of health recently communicated with Zartarian to express her appreciation for the publication, express how useful the publication is to her and request permission to use one of the publication's figures in upcoming presentations.

## Microplastics Workshop

Last week, ORD and the California Department of Public Health (CDPH) hosted a mini-workshop on microplastics research for Region 9 and CDPH staff. ORD presented work on a multi-regional

RARE project to isolate microplastics in sediment. CDPH discussed their methodology for preparing and identifying microplastics in fish guts, and Region 9 discussed recent research, including a sampling effort at Tern Island.

## Using CyAN Data Can Help Avoid Big Costs

The Cyanobacteria Assessment Network (CyAN) is a multi-agency project with representatives from NASA, NOAA, USGS, and EPA working to use satellite data in an early warning indicator system for algal blooms in U.S. freshwater systems. The CyAN team has been working with Resources for the Future (RFF) to quantify the socio-economic benefits of using CyAN satellite products for issuing health advisories. RFF recently presented preliminary findings case study from 2017. In that case study, Utah Department of Environmental Quality (DEQ) detected an algal bloom in a Utah lake using satellite data. They warned people not to use the lake for swimming or boating and closed portions of the lake all together. RFF's assessment suggests that Utah DEQ's actions resulted in the avoidance of a total societal cost of around $600,000. The costs avoided included about 7,860 fewer people being exposed to the harmful algal bloom and 400 fewer cases of gastrointestinal illness.

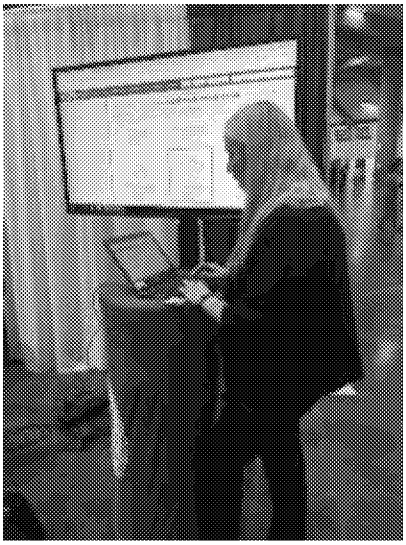
## EnviroAtlas on Virginia Department of Environmental Quality Site

As ORD researchers develop methods, models and tools to help states, tribes and communities protect human health and the environment, it can be useful to look for and note the ways that these tools are being used. EnviroAtlas, EPA's collections of interactive map-based tools that help people find and use ecosystem services data, is gaining importance among users at the state, tribe and community levels. As evidence of this, an ORD researcher recently noted that Virginia Department of Environmental Quality (VA DEQ) now links directly to EnviroAtlas from its environmental spatial data page, VEGIS.

## SETAC

Last week, ORD participated in the Society of Environmental Toxicology and Chemistry (SETAC) 39th Annual Meeting by presenting more than 40 presentations, providing demonstrations of online tools and promoting research at the ORD exhibit booth. More information about ORD's presence at SETAC is available here.

*CSS' Lauren Gessner and Ashley Miller-Dykeman staffing the EPA Research booth*



*NERL's Elin Ulrich demonstrating the CompTox Chemicals Dashboard*

### All Ages Lead Model FRN

Earlier this month, the Federal Register Notice (FRN) announcing the call for nominations to the SAB peer-review panel for the All Ages Lead Model (AALM) was published. The SAB webpage is open for nominations until November 23rd, 2018.

### Research Supporting Salmon in the Pacific Northwest

Last week, NHEERL researchers met with Region 10 and others, including USGS, NOAA, the States of Oregon and Washington, and the Columbia River Tribes to share the results of modeling which evaluates the extent to which cold water refuges are sufficient to support salmon under current and future conditions. Results now include plots of fish thermal exposure, energy usage estimates, densities over time in cold water refuges, and dam passage timing.

### Aerial Sampling at Boiler Stack, Midland, MI

This week, under a Cooperative Research and Development Agreement between ORD and The Dow Chemical Company, NRMRL's Brian Gullett and Bill Mitchell will conduct aerial sampling downwind of a boiler stack at a Dow plant. This work will determine whether on-board aerial samplers agree with boiler continuous emission monitors.

### U.S.-Canada Air Quality Committee Meeting

Lindsey Stanek (NERL) will share U.S. wildland fire research highlights at the 2018 US-Canada Air Quality Committee Meeting on Thursday in Ottawa, Canada. The committee meeting is an annual gathering under the U.S. Canada Air Quality Agreement, which serves as the primary mechanism for binational cooperation to address transboundary air pollution issues.

## In the Office:

### USAccess Badge Reminder

All staff and contractors need to have your new ID badges **in hand** before the end of the year so you can continue to have access to buildings and computers. As of last week there are over 400 ORD feds and contractors who still need to fully complete this action. After scheduling a time to get new fingerprints, it can take a few weeks to get the badge back. Everyone should have a goal of getting the fingerprints appointment completed no later than the first week of December to allow time for the follow up appointment to be scheduled for badge pick up. If you have not

received an email (comes from HSPD12@ADMIN) asking you to schedule your appointment for fingerprints or badge pick up, you can contact your security/badge office directly, or the Personnel Security Branch (PSB) (202-564-2206), to request a new email or set up the initial appointment.

## Accolades:

### Public Health Partnerships and APHA Award

Yesterday, NHEERL's Wayne Cascio received the Homer N. Calver Award at the Annual Meeting of the American Public Health Association (APHA) in San Diego. He received the award in recognition of his work as a cardiologist, researcher, and public health advocate, and particularly for his role in leading EPA's work to focus global attention on the link between air pollution and heart disease. This award from the Environmental Health Section of APHA is an important recognition of the impact EPA's work has had on building federal and stakeholder partnerships to communicate environmental health risk to a wide range of audiences, including health care providers, patients, and federal, state, tribal, local, and non-governmental organizations. Several ORD researchers will be attending APHA this year, for more info on sessions and posters, etc., check out the event page.



### High Impact Publication

The *Journal of Biomolecular Techniques* recently notified NHEERL scientist Kimberly Nelson that five years after being published, a paper authored by Nelson and a team is the 11th most cited paper in the journal for that time period. The paper documents the development of methods for the use of gelatin hydrogels as an embedding media for whole-body zebrafish cryosections for use in mass spectrometry imaging of proteins and peptides.

## In the News:

### Awards Announcement for SBIR

On November 8, EPA announced 17 Phase I SBIR awards to 16 small businesses via a national press release. EPA is funding these companies to develop novel technologies in the areas of treatment of PFAS in drinking water; novel materials for water pipes; detection and remediation of PFAS in contaminated sites; decontamination for homeland security applications; detection and mitigation of leaks from oil & gas operations; greener plastics, and sustainable construction materials. Phase I awards are for "proof of concept" and recipients will receive up to $100,000 for 6 months. These companies are then eligible to compete for Phase II awards of up to $300,000 to further develop and commercialize their technologies.

### EM Magazine Article Highlights SOAS Study Contributions

An EPA Research Highlights article in EM magazine by Ann Brown (IOAA) provides a summary of scientific contributions resulting from the Southern Oxidant and Aerosol (SOAS) Study, one of the largest air monitoring studies conducted in the southeast United States in two decades. The research by EPA STAR grantees, and scientists from EPA and other organizations and universities has made significant contributions to the understanding of air pollution in the Southeast and provided the science needed by states and other decision-makers to further improve air quality in the region.

## In the Community:

**EPA-RTP STEM Outreach Program**

- Today, the program will host a booth at the Southern School of Energy & Sustainability Career Fair in Durham, and the program will participate in Citizen Schools at Githens Middle Schools in Durham.
- Tomorrow, the program will lead its seventh EPA Environmental Club for 3rd thru 5th graders at E.K. Powe Elementary School in Durham; present Generate: the Energy Game to students studying Environmental History at the Carolina Friends School in Durham; lead a hands-on activity at W.G. Pearson Elementary School in Durham; and judge student presentations at the Triangle Math and Science Academy Science Fair in Cary.
- On Thursday, the program will lead its seventh biweekly hands-on STEM activity for the afterschool program at Holt Elementary School in Durham, and participate as career role models in an afterschool program for African American males at Powell Elementary School in Raleigh.
- On Friday, the program will provide speed mentors in the Networking 101 portion of the Great Xplorations Career Day at the NC State McKimmon Center in Raleigh; host students from the Duke Conservation Society on campus for a morning of tours and speed mentoring; and host a high school student from Apex Friendship High School interested in Toxicology for a job shadow day.

**Noche de Ciencias**

Last Wednesday, ORD hosted a booth at Noche de Ciencias or "Night of Science" at the invitation of the US. Patent and Trademark Office. The event was held in collaboration with the Society of Hispanic Professional Engineers who introduces students and families to science and engineering through hands-on activities and exposure to college and career info in #STEM. ORD's Melissa Anley-Mills staffed the booth with others from OW, OCSPP, and OARM. Kids (and some adventurous adults) took the lung capacity challenge and made slime while learning about air quality and chemicals. The event attracted over 800 hundred people from the Alexandria, VA community. If you're in DC and are interested in participating in future local STEM activities, please ask Melissa Anley-Mills to be added to her list (anley-mills.melissa@epa.gov)

# Faces of ORD: Armah de la Cruz

**Name:** Armah a. de la Cruz
**Job/Position**: Research Microbiologist
**L/C/O or Program**: NERL, Exposure Methods & Measurements Division/ Internal Exposure Indicators Branch in Cincinnati

**1. When did you start at EPA?** I joined the Agency in May 1992.

**2. What's the most interesting thing about your job?** I can do research in areas that interest me which is also of interest to the Agency.

**3. What's the most interesting thing in your workspace?** I have a night-blooming cereus plant that is over 35 years old.

**4. What's your favorite thing to do (besides come to work)?** I enjoy gardening and given time, ballroom dancing.

**5. What's your favorite lunch spot?** I usually have lunch in my office and given time, at Korean Riverside & Bangkok Bistro. Experiments at times are long & lunch time is erratic.

**6. If you could have one superpower, what would it be?** To ensure that people all over the world have basic necessities & live harmoniously.

**7. What is your favorite movie?** Star Wars

**8. Describe any steps you take in your daily life to protect the environment.** I have ENERGY STAR® rated appliances, installed LED lights at home, turn off lights when not in use or

leaving a room, programmed my thermostat accordingly, compost, recycle/reuse, bring my own bags when shopping, try to avoid products that use plastics, combine my errands, and created a rain garden.